

## ECE's Undergraduates Learn the Art of Communication

Professor William E. Sayle turned to undergraduate student Kathleen Cobb and asked, If you could have lunch with any historical figure, who would it be and why? He was not striking up idle conversation. The posing of this question embodies an aspect of ECE's undergraduate program that extends beyond the parameters of most traditional engineering curricula.

***ECE is striving to develop engineers who can think critically, communicate effectively, and work productively in teams.***

The venue for achieving these goals is ECE's Undergraduate Professional Communications (UPC) Program, where teaching concrete communication skills is integrated throughout the undergraduate curriculum. The program begins with ECE 2031, Digital Design Laboratory, which is a required sophomore course. In this writing intensive course, the students get their first exposure to an idea that may seem novel to an emerging engineer writing counts! As an integral part of this course, students are required to write a formal laboratory report, laboratory summaries, and a design proposal.

From this foundation, the students proceed to ECE 3041, Instrumentation and Circuits Laboratory, at the beginning of their junior year where they continue to hone their writing skills. They also develop industry style documents and begin to learn how to make oral presentations. Typically, in the second semester of the junior year, the students take ECE 3042, Microelectronics Circuits Laboratory, where they engage in more sophisticated writing, including industry documents such as reports with recommendations, feasibility studies, and user's manuals.

The discipline-specific training continues in the students senior year, as they take ECE 4000, Project Engineering and Professional Practice. Here, students move from the previous courses, which were highly structured and required explicit style and content, to a more open communications environment. They begin with the Toastmaster style of oral communication exercise, where they speak extemporaneously on such engaging subjects as



*At ECE, the future generations of engineers are trained in the art of communication and collaboration. Students are pictured working with their mentors and with each other from concept to design, to prototype development on the buzzmobile. The vehicle is programmed to navigate itself by way of sensors that bounce signals off the walls, leading the vehicle to open spaces.*

an historical figure with whom they would like to have lunch, and proceed to be exposed to multiple opportunities to engage in academic and professional speaking situations, as well as to develop research papers and design reports.

The culminating course in the UPC Program is ECE 4006, Major Design Project, where the students undertake a team-oriented design project. In this course, students draw upon all of the written and oral communication skills learned throughout their undergraduate careers. However, for this final course, they are required to work in teams, rather than independently. As a unit, the students work on a design project where they learn to reach consensus, make group decisions, and collectively develop a final written and oral report.

*continued on page 2*

## Chair's Corner



*Roger P. Webb  
ECE Chair*

Our School has enjoyed remarkable success in the development of our graduate research programs. Comparative ratios from 2002 and 1992 tell a compelling story of our success over the past 10 years. Our research funding has grown from \$7,849,469 to today's level of \$26,324,934, a more than threefold increase! The number of doctoral graduates went from 48 to 56, and our faculty has grown from 84 to 110. Our justified pride in the accomplishments reflected by these ratios has caused us to crow a bit. I sometimes wonder if the attention given to graduate research may overshadow equally exciting developments in what I still consider to be ECE's fundamental mission: undergraduate education. I hope that this newsletter, focusing on various aspects of this mission, will underscore ECE's dedication to our undergraduate students and our commitment to sustaining a benchmark undergraduate program.

When we converted from quarter to semester-based operation, we did not simply reconfigure the courses to fit this new framework. We took this opportunity to implement new and significantly revised curricula that preserved our traditional emphasis on fundamentals, as well as our commitment to significant elective freedom. Within that fairly standard context, a quiet revolution took place: both of our curricula now begin with a course in digital signal processing. This is far more significant than the statement may imply. Time-frequency concepts became fundamental basics for subsequent courses. These concepts are now introduced with significant laboratory experience utilizing innovative computer simulation tools, which enable students to relate theory to specific applications. Thus, the course establishes an intellectual base, sets a tone for effective use of computer utilizations and tools, and, by emphasizing application, speaks to the issue of student motivation.

Undergraduate education is inherently stable as it involves the continuous transfer of intellectual heritage. Our continued challenge is to create and sustain an effective

undergraduate program that incorporates and balances both theory and application within the context of a typical four-year program. Because ECE is so large and diverse, this challenge can be met only by the enthusiastic engagement of our interested and dedicated faculty. I'm pleased to say that our School meets this challenge, and in so doing, broadly influences many others. Our faculty is engaged! ¥

### UNDERGRADUATE COMMUNICATIONS, from page 1

Christina Bourgeois, the UPC Program coordinator, has worked closely with the faculty in crafting the targeted courses to optimize the concurrent learning of the technical course content with the development of essential communication and team building skills.

The role of the graduate teaching assistants is a special feature of this program. They serve as mentors to the undergraduates. Chris McGahey, a UPC Program teaching assistant said, We are not just teaching grammar and mechanics; we're teaching engineering discourse—how to communicate with their unique audiences.

We are very excited about our program because we can see the students grow into their expanded role as a more complete engineering professional. said Ms. Bourgeois. I think that this is happening because we are building communication skills in the context of real engineering research and design courses, and acculturating the students into their own discourse community.

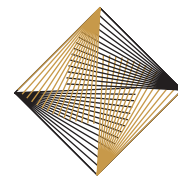
Hal Calhoun, a member of ECE's Advisory Board, said about the UPC Program, I think the communications emphasis is a fantastic idea and I only wish it had been in existence when I was at Tech. Upon graduation, I believe I completely underestimated the importance of coupling a strong technical background with an equally strong capability in both written and oral communications. One can have the best technical ideas in the world, but without the ability to effectively communicate them to others, they are of little value.

The old paradigm of engineering being primarily applied to government defense work is giving way to increased commercialization and globalization. As this happens, the importance of developing the communication skills of the future generation of engineers becomes evermore important. ECE has taken an early initiative to expand the undergraduate curriculum to address this emerging need. Dr. Sayle, ECE's associate chair for Undergraduate Affairs said, It is our hope that ECE's graduates will become recognized not only as outstanding engineers, but also as able communicators, collaborators, and leaders. ¥



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## Faculty Spotlight: Regents Professor Russell M. Mersereau

Affectionately known as Mug Man by his colleagues because of the omnipresent mug of coffee he carries, Russell M. Mersereau's quiet, self-effacing demeanor belies the giant he really is as a professor and as a leader in the digital signal processing (DSP) field.

Dr. Mersereau has been at Georgia Tech for over 25 years. During this time, he has achieved international prominence for his research in multidimensional DSP and image processing. His work has earned him the most coveted awards and titles of distinction. He has been a Fellow of the IEEE for nearly 20 years; he received the IEEE's Third Millennium Medal; and he was given the IEEE Signal Processing Society Award, which is its top research award. He also has been an influential and prolific writer, having authored three textbooks, more than 50 journal articles, and more than 150 refereed conference papers.

Dr. Mersereau is also recognized and admired for his role as a teacher. His teaching excellence has been recognized by many prestigious awards, including the ECE Best Teacher Award in 1978 and 1989, the Sigma Xi PhD Thesis Advisor Award in 1994, and the Institute's W. Roane Beard Outstanding Teacher Award in 1995. Most of the 35 doctoral students he has graduated now hold faculty positions at major universities or top research positions in the industrial sector. Three of his students have won Outstanding Thesis Awards from the Georgia Tech chapter of Sigma Xi. Dr. Mersereau has consistently supervised as many as 12 doctoral students at any given time. In spite of this substantial load, he is always known for the tremendous amount of

time that he devotes to his students. Kayron C. Gilstrap, DSP's administrative manager, said, "The amazing thing about Russ is that he always spends at least 30 minutes a week with each of his students. All of his students realize what an important person he is and are amazed at how open and available he is to them. He is a role model for other faculty members."

When he was nominated for the Outstanding Doctoral Thesis Advisor Award this past January (which he won), his former students came forth with words of praise for a professor who clearly has left his mark on their lives, personally as well as professionally. The following collage of statements from his former students tells a tale of an individual who is the quintessential professor: learned, compassionate, and inspiring; he teaches students to be independent thinkers and challenges them to perform at their best; he is always willing to go the extra mile to help his students; he treats all of his students with great respect; he walked behind me and watched carefully what I was doing and let me make only the mistakes that made me stronger; he is a great mentor and taught me self-confidence and to believe in myself; what a great role model he is! he is the best advisor I could have had in every respect.

Dr. Mersereau grew up in the New England area, and attended MIT where he earned his bachelor's, master's, and doctoral degrees. He is married and has two sons, Adam, who is in the graduate Operations Research program at MIT, and David, who is in his second year of veterinary school at the University of Georgia. His wife, Martha, is a physical science teacher at Westminster Schools. ☺



*The embodiment of the terms, gentleman and scholar, Russ is a low-key guy who makes a huge impact. As a mentor, he has few peers.*

Roger P. Webb  
Steve W. Chaddick  
School Chair

## Connelly Retires after 33 Years of Service

After 33 years of distinguished service, J. Alvin Connelly retired as ECE professor and associate chair for Faculty Development. Dr. Connelly was honored by present and past faculty colleagues, staff, and former students at a reception on February 22, 2002.

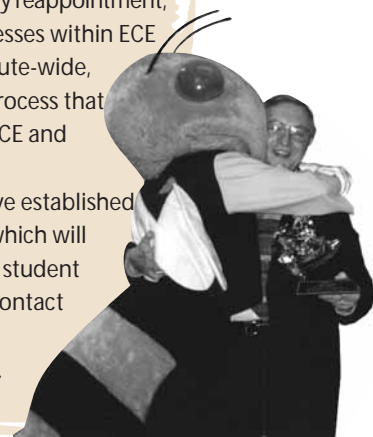
Dr. Connelly began his career at Georgia Tech in 1968 and devoted much of it to building a world-class program in analog electronics. In the late 1980s, he co-founded the Georgia Tech Analog Consortium (GTAC) to improve relationships with companies interested in analog research and education and to better educate students in meeting future industrial needs. Today, GTAC has 14 full-time faculty and several support staff members, 50 PhD students, 25 master's students, and 13 member companies.

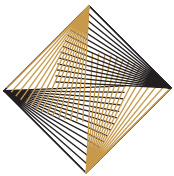
In 1991, Dr. Connelly was promoted to associate chair for Faculty Development, where one of his major responsi-

bilities was to coordinate ECE's reappointment, promotion, tenure, and post-tenure processes.

Alvin Connelly has established an enduring legacy by creating exemplary, standard-setting faculty reappointment, promotion, tenure, and post-tenure processes within ECE that are now the standard to follow Institute-wide, said Roger P. Webb, ECE chair. This is a process that has an enduring legacy and will impact ECE and Georgia Tech for many years to come.

Members of ECE's Advisory Board have established the J. Alvin Connelly Endowment Fund, which will support graduate students and graduate student initiatives in ECE. For more information, contact Suzy Briggs, director of Development, at 404.894.5210 or sbriggs@ece.gatech.edu.





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\*Chair

## DSP Receives \$1 Million from Texas Instruments

Three years ago, Georgia Tech was named as one of three members of Texas Instruments Leadership University Program, along with Rice University and MIT. At that time, Texas Instruments donated \$3 million to these three elite engineering schools to promote innovative education and collaborative research in digital signal processing (DSP). Since then, these schools have been hard at work in developing cutting edge technologies in such areas as face and speech recognition, chaotic systems for digital communication, and wireless video transmission.

In January 2002, Texas Instruments donated an additional \$3 million (\$1 million to each school) to the Leadership University Program members to continue their collaborative research. Al Oppenheim, Ford Professor of Engineering at MIT said, The DSP Leadership University Program is a perfect example of how collaborative relationships between universities and public companies should work. Sidney Burrus, dean of the School of Engineering at Rice University said, Inter-university collaborations in DSP particularly among Rice, MIT, and Georgia Tech have been tremendously beneficial.

Ronald Schafer, Regents Professor and John and Marilu McCarty Chair in the School of ECE at Georgia Tech, said, In addition to the collaborative research efforts, the three universities benefit from close contact with Texas Instruments, which gives students a post graduate competitive advantage. ¥

## Schlumberger Donates Intellectual Property to NEETRAC

ECE's electric power research center, the National Electric Energy Testing, Research, and Applications Center (NEETRAC), recently received the first gift of intellectual property ever made to Georgia Tech. Schlumberger Resource Management Services, Inc. (RMS) donated two patents in power line carrier (PLC) technology valued at \$4.079 million. PLC technology uses power lines to carry data signals to and from businesses and homes. Schlumberger RMS provides professional business services for utilities, energy service providers, and industry worldwide.

This represents a unique opportunity for industry/university partnering, according to Hans B. P ttgen, director of NEETRAC. Schlumberger's generous donation and support has the potential to provide significant returns to Georgia Tech in terms of both licensing revenues and as the basis for exciting research.

NEETRAC is a member-supported electric energy research, development, and testing center, housed in ECE. NEETRAC works with 24 corporate members in the design, development, testing, and evaluation of electric energy systems and subsystems. In addition to making the donation of intellectual property, Schlumberger RMS has joined NEETRAC as a corporate member and will work with the Center to further develop and commercialize their power line carrier technologies. ¥

## EMS Technologies Donates \$20,000 for Fellowship Support

EMS Technologies, Inc. donated \$20,000 to ECE's Microwave Engineering Group to support graduate student research for the 2001-2002 academic year. This marks the 18<sup>th</sup> consecutive year that EMS Technologies has provided this support to ECE. We are pleased to continue to provide sustained support to one of Georgia's leading engineering programs, said Al Hansen, president and CEO of EMS Technologies. The quality of Georgia Tech's programs has helped make Atlanta a leading technology center and has given us a strong pool of local talent upon which to draw as we build up our technical employee base.

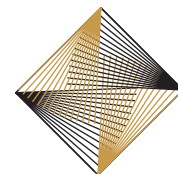
ECE Professor Andrew F. Peterson said, Support such as the EMS Fellowship is critical in assisting us to attract and retain the best graduate students. ¥

## Georgia Tech Lorraine Celebrates 10<sup>th</sup> Anniversary and Award

Last fall, the awards ceremony for the *Trophée de la Nouvelle Economie* was held in Metz, France where Georgia Tech Lorraine (GTL) was the honored recipient of the Best Initiative Award. These awards are sponsored by four of France's foremost print, broadcast, and telecommunications media.

The receipt of this award coincided with another significant milestone for GTL its 10-year anniversary. On the occasion of Georgia Tech's Fall 2001 graduation, public officials of Lorraine, France, leaders of GTL's partner institutions, faculty, and graduating students came to the Atlanta campus to celebrate this event. These visitors were joined by Jean-Lou Chameau, Georgia Tech's provost, Hans B. P ttgen, GTL's president, and by other friends from the Georgia Tech community.





## Second Annual Carreker Lecture a Success

The second annual James R. Carreker Distinguished Lecture Series featured Steven P. Hanson, president and CEO of ON Semiconductor. Mr. Hanson spoke on The Trends and Challenges for the Semiconductor Industry. ON Semiconductor is a member of ECE's Georgia Tech Analog Consortium and also funds the ON Semiconductor Professorship currently held by J. Stevenson Kenney.

*Steven Hanson, president and CEO of ON Semiconductor, delivers his lecture from the Dasher Auditorium in the Van Leer Electrical Engineering Building.*

*At the reception following the lecture, Steven Hanson, ON Semiconductor Professor J. Stevenson Kenney, and Jim Carreker have the opportunity to visit.*



## Davidson Named One of *Fortune's* Top 50 Most Powerful Women in American Business

When Janet G. Davidson earned her master's degree in electrical engineering in 1979, she had already distinguished herself as one of an elite group of women with an advanced engineering degree. Since then, she has continued to make her unique mark on the corporate and engineering world, working as manager, then vice president, and now group president for Lucent Technologies.

In recognition of her accomplishments, *Fortune Magazine* named her one of the 50 Most Powerful Women in American Business. The Georgia Tech community joined

## Eleven ECE Alumni Receive College of Engineering Awards

The College of Engineering held its annual alumni awards ceremony in November 2001. Eleven alumni from ECE were inducted.



### Hall of Fame

Stephen L. Johnston, BEE 48, MSEE 49

### Academy of Distinguished Engineering Alumni

J sus L on, ABD 74

John P. Lappington, Jr., BEE 66

Janet G. Davidson, MSEE 79

William Y. McCaslin, Jr., BEE 63

Fred L. Kitson, MSEE 75

Howard A. Thrailkill, BEE 61

Stephen B. Alexander, BEE 81, MSEE 82

### Council of Young Engineering Alumni

Thomas J. Quigley, BEE 84

Joseph L. Lias, MSEE 83

Michael T. Kluber, BEE 87

*Back row, l-r:  
Thomas J. Quigley,  
Joseph L. Lias,  
Howard A. Thrailkill,  
Stephen B. Alexander,  
Michael T. Kluber.  
Sitting, l-r:  
Stephen L. Johnston,  
Roger P. Webb  
(Steve W. Chaddick  
School Chair),  
J sus L on*

### COLLEGE OF ENGINEERING AWARDS

The College of Engineering has established three awards to honor outstanding alumni.

#### Engineering Hall of Fame

Membership for the highest honor that can be bestowed on College of Engineering alumni is reserved for individuals who have made sustained and meritorious engineering and/or managerial contributions during their careers.

#### Academy of Distinguished Engineering Alumni

Membership is reserved for individuals whose contributions to Georgia Tech, the engineering profession and field, and/or society have brought distinction to themselves and the Institute.

#### Council of Outstanding Young Engineering Alumni

Membership is reserved for alumni under 40 years of age who have demonstrated outstanding professional achievements.

in the chorus of accolades as the College of Engineering inducted her into the Academy of Distinguished Engineering Alumni in November 2001.

In an interview with Georgia Tech's Alumni Magazine, Ms. Davidson said, The year I spent at Georgia Tech was truly wonderful. I have very fond memories of many of my professors. One of my personal favorites was Dr. Daniel Fielder and his dog, Socrates, whom we all fondly called Doc and Soc. ¥



# New Faculty

*Nine new faculty members have joined ECE since the summer of 2001, bringing our full-time faculty total to 110. Yogendra Joshi, whose primary appointment is in mechanical engineering, holds a joint appointment in ECE.*



**David S. Citrin**, Associate Professor  
BS Physics 85, Williams College; MS Physics 87, University of Illinois; PhD Physics 91, University of Illinois  
Areas: Optics and photonics and electromagnetics  
Previously with the Department of Physics at Washington State University, Dr. Citrin is a past recipient of the prestigious Presidential Early Career Award for Scientists and Engineers, and he serves as associate editor for the *IEEE Journal of Quantum Electronics*. His research focuses on the optical properties of low-dimensional semiconductor structures, materials, and devices.



**Magnus Egerstedt**, Assistant Professor  
BA Philosophy 96, Stockholm University; MS Engineering Physics 96, Royal Institute of Technology; PhD Mathematics 00, Royal Institute of Technology  
Areas: Computer engineering and systems and controls  
Dr. Egerstedt's research is in the control and analysis of hybrid dynamic systems, with an emphasis on motion planning and control of mobile robots. Before coming to ECE, he was a postdoctoral scholar at Harvard University, where he also received an Outstanding Teaching Fellow Award from the Division of Engineering and Applied Science.



**Ian T. Ferguson**, Professor  
BS Physics 84, Heriot Watt University; MSc Optoelectronics 86, University of St. Andrews; PhD Semiconductor Physics 89, University of St. Andrews  
Area: Microsystems  
Previously employed with EMCORE Corp., Dr. Ferguson's research focuses on creating innovations in materials that bring new functionality to microelectronic or optoelectronic devices. Extremely active in new business development, Dr. Ferguson received a National Small Business Association Tibbets Award in 1997. He is the founder of the International Symposium on Solid State Lighting.



**Chuanyi Ji**, Associate Professor  
BSEE 83, Tsinghua University; MSEE 86, University of Pennsylvania; PhD 92, California Institute of Technology  
Area: Telecommunications  
Dr. Ji's primary areas of research are in computer communication networks and adaptive systems. Before coming to ECE, she was with the Department of Electrical, Computer, and Systems Engineering at Rensselaer Polytechnic Institute. A past recipient of the National Science Foundation CAREER Award, she is a regular paper reviewer for the top journals in telecommunications and digital signal processing (DSP).



**Yogendra Joshi**, Professor  
BTech Mechanical Engineering 79, Indian Institute of Technology at Kanpur; MS Mechanical Engineering 81, State University of New York at Buffalo; PhD Mechanical Engineering 84, University of Pennsylvania  
Area: Microsystems  
Dr. Joshi holds a joint appointment between ECE and the Woodruff School of Mechanical Engineering. Prior to joining Georgia Tech, he held academic positions at the University of Maryland at College Park and the Naval Postgraduate School in Monterey, CA. Dr. Joshi's research involves thermal and fluid flow issues associated with electronic devices, packages, and systems.



**Aaron D. Lanterman**, Assistant Professor  
BSEE 93, BS Computer Science 93, BA Music 93, Washington University in St. Louis; MSEE 95, Washington University in St. Louis; DSc 98, Washington University in St. Louis  
Area: Digital signal processing  
Before joining ECE, Dr. Lanterman was a visiting assistant professor and a postdoctoral associate at the University of Illinois at Urbana-Champaign. His research interests are in the areas of automatic target recognition for infrared imaging and radar systems, statistical signal and image processing, and image reconstruction.



**Sung Kyu Lim**, Assistant Professor  
BS Computer Science 94, University of California at Los Angeles; MS Computer Science 97, University of California at Los Angeles; PhD Computer Science 00, University of California at Los Angeles  
Area: Computer engineering  
Dr. Lim's research is focused on VLSI CAD applications in performance/power driven logic synthesis and physical design, high speed interconnect modeling and optimization, fundamental CAD algorithms, and combinatorial optimization. Before coming to ECE, he was a visiting scholar at Seoul National University and a senior engineer at Aplus Design Technologies, Inc.



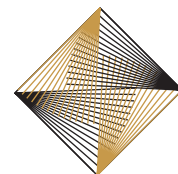
**Ioannis (John) Papapolymerou**, Assistant Professor  
BSEE 93, National Technical University of Athens; MScEE 94, University of Michigan at Ann Arbor; PhDEE 99, University of Michigan at Ann Arbor  
Areas: Electromagnetics and electronic design and applications  
Prior to joining ECE, Dr. Papapolymerou was with the Department of Electrical and Computer Engineering at the University of Arizona, and he also was a visiting professor at the University of Limoges in France. His research is focused on the development of novel, low-cost RF/microwave circuits for wireless communications, radar, and sensor systems.



**George Riley**, Assistant Professor  
BSEE 72, University of Alabama; MS Computer Science 96, Florida Institute of Technology; PhD Computer Science 01, Georgia Tech  
Area: Computer engineering  
After 25 years in industry, Dr. Riley decided to return to graduate studies, culminating with his doctoral degree in computer science. Currently, he is the program committee chair for the 17th Workshop on Parallel and Distributed Simulation, to be held in San Diego, CA. His research interests are in the area of large-scale distributed simulations of computer networks.



**Gabriel Rincón-Mora**, Assistant Professor  
BSEE 92, Florida International University; MSEE 94, Georgia Tech; PhDEE 96, Georgia Tech  
Area: Electronic design and applications  
Dr. Rincón-Mora's research is in the area of precision low-voltage and low-power analog circuit design. A recipient of numerous distinctions, including the National Hispanic in Technology Award, he came to ECE after working as a senior design engineer and design team leader in the Power Management Products Group at Texas Instruments.



## Alumni News

**Ray H. Pettit** (BEE '54 MSEE, '60 PhD) is a professor at California State University—Northridge, where he just completed his third consecutive summer in the development of advanced satellite/submarine communications for the U.S. Navy in San Diego, CA. As a result of his work, the Navy's Patent Counsel has submitted to the U.S. Patent Office two applications on his behalf.

**David Leer** (BSEE '68) is a configuration manager with Alogent, Inc. in Marietta, GA.

**David Foote** (BEE '80) was recently named Chief Technical Officer for Hitachi Telecom USA in Norcross, GA which develops, markets, and supports high-speed optical networking systems (SONET, SDH, DWDM, Optical Switching) to major telecommunications carriers and service providers.

**Herb Gallagher** (MSECE '80) is the vice president of Joint Missile and Air Defense (JMAD) Programs in the Defense Group of Computer Sciences Corporation (CSC), where he manages all JMAD scientific, engineering, and technical services that are provided by CSC to DoD agencies in Washington, DC and Colorado Springs, CO.

**Vasim Qureshi** (MSEE '80) joined Schlumberger as a result of an on-campus interview at the Georgia Tech Placement Center, more than 20 years ago. After working around the world in various positions, he finally moved to the office in Calgary, Canada, where he works as a senior support geoscientist.

**Antonio Cardona** (BEE '81) is the director of engineering for the Technology Center in Nipro, PR. It is the first R&D operation in Puerto Rico dedicated to the development of plastic products. The center is presently developing (and manufacturing plastic products) for the medical and consumer electronics industry.

**Randi L. Dulaney** (BEE '82) received a Juris Doctor in May '01 from NOVA Southeastern University and was sworn in as a member of the Florida Bar in October 2001.

**Michael Begley** (BEE '83, MSEE '90) was presented the Silver Snoopy Award by the astronaut corps for his work on the International Space Station Guidance, Navigation, and Control System at the Boeing Company in Houston, TX.

**David Stewart** (BEE '83), president/founder of CDS Engineering Solutions, Inc., is completing a very successful first year of operation. The company is an engineering consulting company that specializes in the development and automation of test equipment used in the

production of electronics products, with the primary area of expertise being RF and fiber optics communications products. He lives in Lilburn, GA with his wife and two daughters, ages nine and 11.

**Madhav M. Bhalerao** (MSEE '84) is a technical staff member with AT&T in Alpharetta, GA.

**Charles Smith** (BEE '85) is the director of the Signal Acquisition and Radiolocation Department in the Signal Exploitation and Geolocation Division at the Southwest Research Institute in San Antonio, TX.

**Mark Lancaster** (BEE '86) is a senior applications engineer at Southwire Company's Cofer Technology Center in Carrollton, GA.

**Austin G. Bosarge** (BEE '88) recently became an attorney with The Corporate Law Group (TCLG), a law firm in San Francisco, CA. Prior to TCLG, he was a senior executive with wireless and Internet companies. He is currently advising several startups in the telecommunications and wireless businesses in addition to his law practice. He and his wife had their first child, Jadon, in November 2000.

**Zourides S. George** (MSEE '89) is a project manager with Bosch Rexroth S.A. in Athens, Greece.

**Carlos Alberto Muniz** (BEE '90) was named new sales manager for the Latin American Region at WebGain, Inc. WebGain, Inc. is a provider of software that accelerates the creation and continuous improvement of enterprise applications.

**James Hyatt** (MSEE '93) is a principal software engineer for Universal Avionics Systems Corporation—Instrument Division in Norcross, GA.

**Hyeong-Kyo Kim** (PhD '93) is an associate professor at Hanshin University in Korea.

**Richard Powers** (BEE '94, MSEE '99) is a lead engineer with CIENA Corporation in Alpharetta, GA.

**Sean McEnroe** (BEE '95, MSEE '96) is a design engineer for Texas Instruments in Dallas, TX.

**Duncan Sinclair** is the CEO of a web services company that he started called Nuvay, Inc. in Marietta, GA.

**Iqbal M. Dar** (PhD '96) is a senior director for CIENA Corporation in Linthicum, MD.

**Eric Black** (MSEE '97) is a project engineer with Boeing Satellite Systems in Los Angeles, CA.

*continued on page 8*

**We Want to Know!** Share your news with your ECE classmates and friends. Just complete this form, clip, and mail or visit our web page at [www.ece.gatech.edu/alumni](http://www.ece.gatech.edu/alumni) and tell us online.

Name \_\_\_\_\_ Degree/Year \_\_\_\_\_

Information for ECE News (recent awards, job changes, papers, patents, etc.) \_\_\_\_\_

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Mail to Suzy Briggs at the School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0250

# Student News

## *Gates Cambridge Scholarship Winners*

**N**ick Bronn and Jay Silver, both recent graduates of ECE, are Georgia Tech's first recipients of the prestigious Gates Cambridge Scholarship, which was created by Microsoft founder Bill Gates. As recipients of this highly esteemed award, both young men will study at the University of Cambridge in England next fall.

Mr. Bronn will leave for Cambridge with three degrees from Tech (bachelor's in applied mathematics and physics and a master's in electrical and computer engineering). He will study applied mathematics and theoretical physics at Cambridge and intends to eventually earn his doctorate degree and to become a professor.

Mr. Silver received his bachelor's degree in May 2002. He intends to pursue a master's degree in computer speech, text, and Internet technology at the University of Cambridge. His goal is to teach in a university environment that focuses on teaching more than on research, because this is where his passion lies.

The scholarship program was initiated two years ago with the support of the Bill and Melinda Gates Foundation. This scholarship is given to approximately 150 students worldwide. This year, it is expected that 50 will be given to students in the United States.

## *Record Breaking News...*

**W**ith a Georgia Tech record swim in the 1,650-yard freestyle, Shilo Ayalon, a junior in computer engineering, finished eighth and earned All-America honors for a second straight year at the 2002 NCAA Men's Swimming and Diving Championships, held at the University of Georgia's Gabrielsen Natatorium.

Mr. Ayalon's effort, clocked at 14:55.05, is the highest-ever, individual finish at the NCAA Championships for a Tech swimmer. While he is quite accomplished in the pool, he

also maintains a 3.74 grade point average and was named to the Atlantic Coast Conference (ACC) Academic Honor Roll.

A native of Kfar Hanassi, Israel, Mr. Ayalon also led the Yellow Jackets to a second-place finish at the 2002 ACC Championships, and he earned all-conference honors in three different events, the 500-yard freestyle, 1,650-yard freestyle, and the 400-yard individual medley. ¥

## *ALUMNI NEWS, from page 7*

**Keith Kilpatrick** (BEE '97) is currently working on his MBA degree at UC Berkeley's Haas School of Business. He reports, "There's a large amount of GT alumni here, and I have access to Berkeley's Engineering Department so I feel right at home."

**Paul Prance** (BEE '97) is with VoiceStream Wireless in Atlanta, GA.

**Kirk Laursen** (PhD '97) is a senior design engineer with OEpic, Inc. in Sunnyvale, CA.

**Dan Belc** (MSECE '98) has just completed his International MBA and is working for Motorola in Fort Lauderdale, FL.

**Richard E. Brown** (BCmpE '98) is an associate in the intellectual property group of Fenwick and West LLP in Palo Alto, CA, practicing patent law.

**Christopher Rake** (BEE '99) is a hardware engineer with National Instruments in Austin, TX.

**Michael Byrne** (BEE '00) is a software engineer with Tyco Fiber Optics.

**Kuo-Hui Li** (PhD '00) is an analysis/application engineer with Metawave Communications Corporation in Redmond, WA.

**Aaron Niese** (MSEE '00) is a member of the technical staff at Sandia National Laboratories in Albuquerque, NM.

**Birju Shah** (BEE '00) is a software engineer with Intel in Santa Clara, CA working on performance analysis software for Intel processors.

**Tomas Hagström** (MSECE '01) is currently working as a junior associate for McKinsey and Company in Sweden.

**Aqib Razzaque** (MSECE '01) is a software engineer for Hughes Network System, Inc. in Germantown, MD.

**Albert Sutono** (PhD '01) is a member of the technical staff for Infinera, Inc. in San Jose, CA. ¥